Chapter 2: Handling

All Turtles page 1
Leatherback Turtles page 2

All Turtles

Turtles should be handled per guidance in Careful Release Protocols for Sea Turtle Release with Minimal Injury (Epperly et al. 2004). After capture, every turtle should be assessed to determine their general state of health and suitability for subsequent research procedures, including an examination of the oral cavity (see Chapter 4 Oral Cavity Anatomy). Remove any attached gear if applicable, and attempt to resuscitate all comatose turtles (see Chapter 3 Resuscitation) when necessary. All captured turtles should be subject to standard processing protocols before release: identification, standard measurements, weights, photographs, flipper and PIT tags, and skin biopsies. Some may be subject to the additional procedures described in this manual, depending on the results of their general assessment and the directed research needs.

Turtles are to be protected from temperature extremes of heat and cold, provided adequate air flow, and kept moist during sampling. Keep the turtle moist by misting it with fresh or salt water, or using wet towels. If using towels, pay particular attention to the ambient temperature, as evaporative cooling may chill the animal under some conditions. If the turtle is to be held out of water for an extended period of time (e.g., transport, surgery), use petroleum or water based lubricant jelly on the skin as necessary to avoid drying. Keep the turtle in the shade, maintaining its body temperature above 60° F, similar to water temperatures at capture. If air temperatures are greater than 80° F, ensure that the turtle does not overheat. Conversely, if air temperatures are less than 60° F, ensure that the turtle does not become hypothermic. Safely isolate the turtle and immobilize on a cushioned surface such as a foam pad, automobile tire or similar. The area surrounding the turtle should not contain any materials that could be accidentally ingested.

Transport turtles in individual containers to ensure that they are unable to injure themselves or each other. Do not transport turtles in open vehicles during excessive heat or cold. Do not pick up turtles by their flippers, but rather, lift them by grasping both sides of the carapace (a better support of their weight), or by using a stretcher that provides adequate support.

All equipment (tagging equipment, tape measures, etc.) that comes into contact with sea turtle body fluids, cuts, sores, etc. must be cleaned and disinfected between the processing of each turtle. Equipment that contacts turtles (without contacting fluids, cuts, sores, etc.) shall be cleaned and disinfected between the processing of each turtle when

DRAFT NMFS/SEFSC Sea Turtle Research Techniques Manual

practicable. Conduct many field procedures and all laboratory procedures using latex or other similar disposable gloves. After each procedure, remove gloves following the proper method: 1) Grip one glove on the outside of the glove near the cuff and peel it down until it comes off inside out. Cup it with your other gloved hand. 2) Place 2 fingers of your bare hand inside the cuff of the glove that is still on your hand. 3) Peel that glove off so that it comes off "inside out" with the first glove inside it. Dispose of the gloves in an appropriate container. Thoroughly wash your hands with soap and water. Always disinfect equipment that comes in contact with diseased animals.

Maintain a separate set of sampling equipment for handling animals displaying fibropapilloma tumors or lesions, and disinfect all equipment that comes in contact with the turtle between the processing of each turtle. After contact with animals displaying fibropapillomas, disinfect all field equipment with an appropriate disinfectant such as dilute (6%) solution of household bleach (sodium hypochlorite) and thoroughly wash your hands. Use a disposable plastic bag around the PIT tag reader to keep it from coming into contact with infected turtles and dispose of the plastic bag between turtles. NOAA Fisheries observers in the field should send any equipment used on a turtle displaying fibropapilloma tumors back to the SEFSC for disinfection.

During release, turtles should be lowered as close to the water's surface as possible, in water of similar temperature as capture when fishing gear is not in use (if applicable) and engines are in neutral.

Leatherback Turtles

Exercise extra care when handling, sampling and releasing leatherback turtles during directed capture research activities, as field and laboratory observations indicate that they have more friable skin and softer bones than hardshell turtles. Leatherback turtles shall not be turned on their backs. Precautions shall be taken to ensure that animals are supported from underneath during release.